CLAIMS

What is claimed is:

1. A method for permanently deforming a flexible film material (1), in which the film material (1) is deformed, forming a receptacle depression (20, 21, 22, 23), characterised in that the film material (1) is kept under controlled tension while it is being moulded, so that controlled creases are formed in the film material (1).

2. The method as claimed in Claim 1, characterised in that the tension is relaxed in a controlled manner during the deforming procedure.

3. The method as claimed in either of Claims 1 or 2, characterised in that the tension is controlled by applying a controlled retaining force to peripheral regions (1a, 1b) of the film material (1).

4. The method as claimed in any of Claims 1 to 3, characterised in that the tension is controlled by moving peripheral regions (1a, 1b) of the film material (1) towards one another in a controlled manner.

5. The method as claimed in Claim 4, characterised in that the peripheral regions (1a, 1b) are moved a specific distance towards one another.

6. The method as claimed in Claim 4 or 5, characterised in that the peripheral regions (1a, 1b) are moved parallel to one another or towards one another in radial directions.

7. The method as claimed in any of the preceding claims, characterised in that the tension is controlled in such a manner that, in the region of the receptacle depression (20, 21, 22, 23), a substantially crease-free region (20a, 20b, 20c, 20d) and a region (20b, 21b, 22b, 23b) provided with controlled creases are formed.

8. The method as claimed in any of the preceding claims, characterised in that the film material (1) is brought to a controlled temperature before or during the deforming process, which makes permanent deformation of the film material possible (1).

9. The method as claimed in Claim 8, characterised in that the temperature is raised or lowered during the deforming process.

10. The method as claimed in any of the preceding claims, characterised in that the film material (1) is partially or completely printed before the deforming process.

11. The method as claimed in Claim 10, characterised in that the film material (1) is printed with distortion-sensitive contents, such as writing, logos or trade marks in a region which is only slightly distorted during the deforming process.

12. The method as claimed in either of Claims 10 or 11, characterised in that the film material (1) is printed with an undistorted printed image.

13. The method as claimed in any of the preceding claims, characterised in that the film material (1) is deformed with a positive (14) and/or a negative mould (16).

14. The method as claimed in Claim 13, characterised in that the positive (14) and/or the negative mould (16) is unheated.

15. The method as claimed in Claim 13, characterised in that the positive (14) and/or the negative mould (16) are heated and brought to a predetermined temperature.

16. The method as claimed in any of Claims 13 to 15, characterised in that the positive (14) and/or the negative mould (16) are subjected to a partial vacuum (18).

17. The method as claimed in any of the preceding claims, characterised in that the film material (1) is heated and deformed during a deformation time between a positive (14) and a negative mould (16), the tension in the film material (1) being relieved in a controlled manner during the deformation time and/or after a recovery time after the end of the deformation time.

18. The method as claimed in Claim 17, characterised in that the recovery time can be up to several seconds long.

19. The method as claimed in any of the preceding claims, characterised in that the flexible film material (1) is delivered to a deforming station in cycles, such that a number of receptacle depressions are formed simultaneously with each stroke of the cycle, with margins of the web being kept under controlled tension

20. The method as claimed in Claim 19, characterised in that the film material is delivered in the form of a continuous web or in the form of individual blanks.

21. A method of manufacturing a product packed in flexible film material (1), especially a food product, using the method as claimed in any of the preceding claims, characterised in that a product to be packed, especially a food product, is placed in the receptacle depression.

22. The method as claimed in Claim 21, characterised in that the food product is introduced into the receptacle depression in a free-flowing state.

23. The method as claimed in either of Claims 21 or 22, characterised in that the receptacle depression is sealed, especially with a sealing film.

24. The method as claimed in Claim 23, characterised in that a peripheral sealing rim or seam is formed, especially by bonding or ultrasonic welding.

25. A device for permanently deforming a flexible film material (1), especially for carrying out the method as claimed in any of Claims 1 to 19, with a positive (14) and/or a negative mould (16) and a means (4) for holding peripheral regions (1a, 1b) of the film material (1).

26. The device as claimed in Claim 25, characterised in that the positive (14) and/or the negative mould (16) can be connected to a vacuum source.

27. The device as claimed in either of Claims 25 or 26, characterised by a heating means (12) for heating the film material (1) to a controlled temperature.